## AMENDMENTS TO THE DRAWINGS

The attached drawing sheet includes changes to Fig.1 and replaces the original sheet including Fig. 1. In Fig. 1: the reference number '104' has been added to the 'main memory' block; the reference number for the 'integer execution unit' has been changed from '102A' to '106' and the reference number for the 'memory interface unit' block has been changed from '104' to '104A'.

Attachment(s): Replacement Sheet including amended Fig. 1.

## REMARKS

This paper is responsive to a Non-Final Office Action dated September 30, 2005. Claims 1-61 were examined, all of which were rejected. Claims 1-61 remain present in this application.

In the present Office Action: the Abstract was objected to; the drawings were objected to; claims 8, 22 and 33 were objected to; claims 1-7, 9-25, 28-49 and 59-61 were rejected under 35 U.S.C. §101; claims 3, 30, 45, 49 and 60 were rejected under 35 U.S.C. §112, first paragraph; claims 1, 19, 47, 54 and 58 were rejected under 35 U.S.C. §112, second paragraph; claims 1-15, 19-49 and 55-60 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,964,867 (hereinafter "Anderson"); claims 50-54 and 61 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Pub. No. 2002/0010913 (hereinafter "Ronstrom"); and claims 16-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson in view of Ronstrom. Applicants have amended the abstract to address the objection to the Abstract. Applicants have also amended the specification to add a serial number for a referenced application, to add brief text for units shown and not referenced in Fig. 1 and to correct minor grammatical and/or typographical errors. Applicants have amended claims 1, 3, 8, 9, 19-22, 25, 32, 33, 39, 46, 47, 50, 54, 55, 58, 59 and 61. Applicants submit that all of the amendments are fully supported by the specification, as filed.

Applicants have submitted herewith a revised Fig. 1 to address the objection to the drawings. While Applicants do not necessarily agree with the rejection of claims 1-7, 9-25, 28-49 and 59-61, under 35 U.S.C. §101, they have, nevertheless, amended claims 1, 19, 39, 46, 59 and 61 to facilitate further examination of the claims on their merit. As such, Applicants submit that the rejection of claims 1-7, 9-25, 28-49 and 59-61, under 35 U.S.C. §101, is now moot. Applicants have also amended claims 8, 22 and 33 and, as such, submit that the objection to claims 8, 22 and 33 is now moot.

With respect to the rejection of claims 3, 30, 45, 49 and 60, under 35 U.S.C. §112, first paragraph, Applicants respectfully submit that the specification, as filed, contains sufficient information regarding the claimed subject matter to enable one of ordinary skill in the art to make and use the invention, defined by the claimed subject matter. That is, the claimed subject matter may be practiced without undue or unreasonable experimentation (see MPEP 2164.01) in

view of Applicants' specification and coupled with information known in the art. As is well know, branch history information has been widely utilized to predict whether a branch instruction was taken or not taken (see, for example, U.S. Patent No. 5,941,985, col. 1, lines 5-67). In view of Applicants' specification, if a branch was not taken, then its branch target location (i.e., an ambiguity creating location) may be ignored when backtracking from a point in code coinciding with detection of an execution event. If a branch was taken, then its branch target location (i.e., an ambiguity creating location) may be considered when backtracking from a point in code coinciding with detection of an execution event. In sum, Applicants submit that the rejection of claims 3, 30, 45, 49 and 60, under 35 U.S.C. §112, first paragraph, is in error and should be withdrawn.

With respect to the rejection of claims 1, 19, 47, 54 and 58, under 35 U.S.C. §112, second paragraph, Applicants, while not necessarily agreeing with all of the rejections, have amended the claims 1, 19, 47, 54 and 58 and, as such, submit that the rejections are now moot.

With respect to the rejection of Applicants' independent claim 1, as being anticipated by Anderson, Applicants respectfully submit that Anderson does not teach or suggest identifying a preceding operation at a predetermined displacement, which is dependent upon the preceding operation and indicated by an execution event, from a detection point, unless an ambiguity creating location is disposed between the detection point and the preceding operation. To the contrary, Anderson merely discloses backtracking a fixed displacement from a detection point irrespective of the preceding operation. Additionally, with respect to the rejection of Applicants' independent claim 19, as being anticipated by Anderson, Applicants respectfully submit that Anderson does not teach or suggest identifying a particular operation at a predetermined latency, which is dependent upon the particular operation and indicated by an execution event, from a coinciding point, unless an unresolved intervening target of a control transfer is encountered between the coinciding point and the preceding operation. To the contrary, as noted above, Anderson merely discloses backtracking a fixed displacement from a detection point irrespective of the preceding operation. Similarly, independent claims 39, 46, 55 and 59 are also allowable for reasons similar to those set forth above for Applicants' independent claims 1 and 19.

With respect to the rejection of Applicants' independent claims 50 and 61, as being anticipated by Ronstrom, Applicants respectfully submit that while Ronstrom does disclose padding of code, Ronstrom does not teach or suggest the implementation of padding to facilitate determination of particular operations associated with execution events. Additionally, Applicants submit that claims 2-18, 20-38, 40-45, 47-49, 51-54, 56-58 and 60 are also allowable for at least the reason that they depend upon allowable claims.

In summary, claims 1-61 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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Michael R. Long — Date: 12-30-05

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